

Name: _____

Pike/Kolb

Unit 5

Optional Practice Packet

Lesson 5 $\frac{1}{2}$ 6

* Answer Key on last page *

Lesson 5A

Reteaching 5-7

Solving Equations by Adding or Subtracting Fractions

Solve $h - 2\frac{3}{4} = -3\frac{1}{6}$.

$$\begin{aligned}
 h - 2\frac{3}{4} &= -3\frac{1}{6} \\
 h - 2\frac{3}{4} + 2\frac{3}{4} &= -3\frac{1}{6} + 2\frac{3}{4} \\
 h &= -3\frac{2}{12} + 2\frac{9}{12} \\
 h &= -2\frac{14}{12} + 2\frac{9}{12} \\
 h &= -\frac{5}{12}
 \end{aligned}$$

Add $2\frac{3}{4}$ to each side.

Use a common denominator.

Rename $-3\frac{2}{12}$ as $-2\frac{14}{12}$.Subtract $2\frac{14}{12} - 2\frac{9}{12}$. The sum is negative because $|-3\frac{1}{6}| > |2\frac{3}{4}|$.**Solve each equation.**

1. $h + \frac{3}{4} = \frac{7}{8}$ _____

2. $e + 1\frac{13}{16} = 2\frac{5}{16}$ _____

3. $m + \frac{5}{8} = -\frac{3}{16}$ _____

4. $p - 4\frac{5}{12} = 2\frac{7}{12}$ _____

5. $x - \frac{5}{9} = \frac{5}{6}$ _____

6. $y - \frac{7}{8} = -\frac{15}{16}$ _____

7. $h + 2\frac{1}{2} = -1\frac{1}{4}$ _____

8. $n - 3\frac{2}{5} = -1\frac{7}{10}$ _____

9. $f + 4\frac{3}{8} = 2\frac{1}{3}$ _____

10. $b - 1\frac{2}{5} = 1\frac{4}{7}$ _____

Lesson 5B

Reteaching 5-8

Solving Equations by Multiplying Fractions

Solve $-4\frac{2}{5}x = 1\frac{1}{10}$.

$$-4\frac{2}{5}x = 1\frac{1}{10}$$

$$-\frac{22}{5}x = \frac{11}{10}$$

$$-\frac{5}{22} \cdot -\frac{22}{5}x = -\frac{5}{22} \cdot \frac{11}{10}$$

$$x = -\frac{\cancel{5}}{\cancel{22}} \cdot \frac{\cancel{11}}{\cancel{10}} = -\frac{1}{4}$$

Write $-4\frac{2}{5}$ as $-\frac{22}{5}$ and $1\frac{1}{10}$ as $\frac{11}{10}$.Multiply each side by $-\frac{5}{22}$, the reciprocal of $-\frac{22}{5}$.

Divide common factors and simplify.

Solve each equation.

1. $8x = 12$ _____

2. $\frac{1}{2}x = \frac{3}{4}$ _____

3. $-\frac{4}{5}y = -\frac{1}{3}$ _____

4. $5h = -\frac{10}{11}$ _____

5. $-\frac{3}{14}j = -1\frac{2}{7}$ _____

6. $\frac{4}{5}p = 2\frac{3}{10}$ _____

7. $1\frac{3}{7}m = \frac{6}{7}$ _____

8. $-\frac{5}{9}n = 2\frac{2}{3}$ _____

9. $4\frac{1}{2}x = 5\frac{5}{8}$ _____

10. $-1\frac{2}{3}k = 4\frac{1}{6}$ _____

Practice 5-7

Solving Equations by Adding or Subtracting Fractions

Solve each equation.

1. $m - \left(-\frac{7}{10}\right) = -1\frac{1}{5}$ _____

2. $k - \frac{3}{4} = \frac{2}{5}$ _____

3. $x - \frac{5}{6} = \frac{1}{10}$ _____

4. $t - \left(-3\frac{1}{6}\right) = 7\frac{2}{3}$ _____

5. $x + \frac{5}{8} = \frac{7}{8}$ _____

6. $k + \frac{4}{5} = 1\frac{3}{5}$ _____

7. $4 = \frac{4}{9} + y$ _____

8. $h + \left(-\frac{5}{8}\right) = -\frac{5}{12}$ _____

9. $n + \frac{2}{3} = \frac{1}{9}$ _____

10. $e - \frac{11}{16} = -\frac{7}{8}$ _____

11. $w - 14\frac{1}{12} = -2\frac{3}{4}$ _____

12. $v + \left(-4\frac{5}{6}\right) = 2\frac{1}{3}$ _____

13. $a - 9\frac{1}{6} = -3\frac{19}{24}$ _____

14. $f + \left|-3\frac{11}{12}\right| = 18$ _____

15. $z + \left(-3\frac{2}{5}\right) = -4\frac{1}{10}$ _____

16. $x - \frac{7}{15} = \frac{7}{60}$ _____

17. $h - \left(-6\frac{1}{2}\right) = 14\frac{1}{4}$ _____

18. $p - 5\frac{3}{8} = -\frac{11}{24}$ _____

Solve each equation using mental math.

19. $x + \frac{3}{7} = \frac{5}{7}$ _____

20. $k - \frac{8}{9} = -\frac{1}{9}$ _____

21. $a + \frac{1}{9} = \frac{3}{9}$ _____

22. $g - \frac{4}{5} = -\frac{2}{5}$ _____

Write an equation to solve each problem.

6A ↓

23. Pete's papaya tree grew $3\frac{7}{12}$ ft during the year. If its height at the end of the year was $21\frac{1}{6}$ ft, what was its height at the beginning of the year?

24. Lee is $1\frac{3}{4}$ ft taller than Jay. If Lee is $6\frac{1}{4}$ ft tall, how tall is Jay?

Practice 5-8

Solving Equations by Multiplying Fractions

Solve each equation.

1. $\frac{3}{4}x = \frac{9}{16}$ _____

2. $-\frac{1}{3}p = \frac{1}{4}$ _____

3. $\frac{-3}{8}k = \frac{1}{2}$ _____

4. $\frac{1}{8}h = \frac{1}{10}$ _____

5. $2\frac{2}{3}e = \frac{1}{18}$ _____

6. $-1\frac{2}{7}m = 6$ _____

7. $-\frac{1}{4}p = \frac{1}{18}$ _____

8. $\frac{11}{-12}w = -1$ _____

9. $-3\frac{4}{7}x = 0$ _____

10. $\frac{2}{3}m = 2\frac{2}{9}$ _____

11. $5c = \frac{2}{3}$ _____

12. $-8k = \frac{4}{5}$ _____

13. $\frac{4}{7}y = 4$ _____

14. $2\frac{1}{4}f = \frac{6}{5}$ _____

15. $\frac{10}{11}n = \frac{2}{11}$ _____

16. $\frac{7}{8}c = \frac{7}{6}$ _____

Solve each equation using mental math.

17. $7d = 42$ _____

18. $\frac{1}{4}y = 5$ _____

19. $-3h = \frac{3}{8}$ _____

20. $\frac{1}{5}k = -\frac{1}{3}$ _____

Write an equation to solve each problem.

6B ↓

21. It takes Nancy $1\frac{2}{3}$ min to read 1 page in her social studies book. It took her $22\frac{1}{2}$ min to complete her reading assignment. How long was the assignment? Let m represent the number of pages she read.

22. It takes Gary three hours to drive to Boston. If the trip is 156 miles, what is Gary's average number of miles per hour? Let x represent the miles per hour.

Answer Key

Reteaching 5-7

1. $h = \frac{1}{8}$ 2. $e = \frac{1}{2}$ 3. $m = -\frac{13}{16}$ 4. $p = 7$
5. $x = 1\frac{7}{18}$ 6. $y = -\frac{1}{16}$ 7. $k = -3\frac{3}{4}$
8. $n = 1\frac{7}{10}$ 9. $f = -2\frac{1}{24}$ 10. $b = 2\frac{34}{35}$

Reteaching 5-8

1. $x = 1\frac{1}{2}$ 2. $x = 1\frac{1}{2}$ 3. $y = \frac{5}{12}$ 4. $h = -\frac{2}{11}$
5. $j = 6$ 6. $p = 2\frac{7}{8}$ 7. $m = \frac{3}{5}$ 8. $n = -4\frac{4}{5}$
9. $x = 1\frac{1}{4}$ 10. $k = -2\frac{1}{2}$

Practice 5-7

1. $-1\frac{9}{10}$ 2. $1\frac{3}{20}$ 3. $\frac{14}{15}$ 4. $4\frac{1}{2}$ 5. $\frac{1}{4}$ 6. $\frac{4}{5}$
7. $3\frac{5}{9}$ 8. $\frac{5}{24}$ 9. $-\frac{5}{9}$ 10. $-\frac{3}{16}$ 11. $11\frac{1}{3}$ 12. $7\frac{1}{6}$
13. $5\frac{3}{8}$ 14. $14\frac{1}{12}$ 15. $-\frac{7}{10}$ 16. $\frac{7}{12}$ 17. $7\frac{3}{4}$
18. $4\frac{11}{12}$ 19. $\frac{2}{7}$ 20. $\frac{7}{9}$ 21. $\frac{2}{9}$ 22. $\frac{2}{5}$
23. $h + 3\frac{7}{12} = 21\frac{1}{6}$; $h = 17\frac{7}{12}$ ft
24. $h + 1\frac{3}{4} = 6\frac{1}{4}$; $h = 4\frac{1}{2}$ ft

Practice 5-8

1. $x = \frac{3}{4}$ 2. $p = -\frac{3}{4}$ 3. $k = -1\frac{1}{3}$ 4. $h = \frac{4}{5}$
5. $e = \frac{1}{48}$ 6. $m = -4\frac{2}{3}$ 7. $p = -\frac{2}{9}$
8. $w = 1\frac{1}{11}$ 9. $x = 0$ 10. $m = 3\frac{1}{3}$ 11. $c = \frac{2}{15}$
12. $k = -\frac{1}{10}$ 13. $y = 7$ 14. $f = \frac{8}{15}$
15. $n = \frac{1}{5}$ 16. $c = 1\frac{1}{3}$ 17. $d = 6$ 18. $y = 20$
19. $h = -\frac{1}{8}$ 20. $k = -1\frac{2}{3}$ 21. $1\frac{2}{3}m = 22\frac{1}{2}$;
 $m = 13\frac{1}{2}$ pages 22. $3x = 156$; $x = 52$ mi/h